

Title (en)  
FERROELECTRIC THIN-FILM LAMINATE SUBSTRATE, FERROELECTRIC THIN-FILM ELEMENT, AND MANUFACTURING METHOD OF FERROELECTRIC THIN-FILM LAMINATE SUBSTRATE

Title (de)  
FERROELEKTRISCHES DÜNNSCHICHTLAMINATSUBSTRAT, FERROELEKTRISCHES DÜNNSCHICHTELEMENT UND HERSTELLUNGSVERFAHREN FÜR EIN FERROELEKTRISCHES DÜNNSCHICHTLAMINATSUBSTRAT

Title (fr)  
SUBSTRAT STRATIFIÉ DE FILM MINCE FERROÉLECTRIQUE, ÉLÉMENT DE FILM MINCE FERROÉLECTRIQUE, ET PROCÉDÉ DE FABRICATION DE SUBSTRAT STRATIFIÉ DE FILM MINCE FERROÉLECTRIQUE

Publication  
**EP 3276686 A4 20180926 (EN)**

Application  
**EP 16768322 A 20160302**

Priority  
• JP 2015064704 A 20150326  
• JP 2016056420 W 20160302

Abstract (en)  
[origin: EP3276686A1] There is provided a ferroelectric thin-film laminated substrate, including a substrate, and further including a lower electrode layer, a ferroelectric thin-film layer, an upper electrode intermediate layer, and an upper electrode layer being sequentially stacked on the substrate, in which: the lower electrode layer is made of platinum or a platinum alloy; the ferroelectric thin-film layer is made of a sodium potassium niobate (typical chemical formula of  $(K_{1-x}Na_x)NbO_3$ ,  $0.4 \leq x \leq 0.7$ ); the upper electrode layer is made of aluminum or an aluminum alloy; the upper electrode intermediate layer is made of a metal that has less oxidizability than titanium and can generate an intermetallic compound with Aluminum; and a part of the upper electrode intermediate layer and a part of the upper electrode layer are alloyed.

IPC 8 full level  
**H10N 30/87** (2023.01); **C01G 33/00** (2006.01); **H01L 21/8246** (2006.01); **H01L 27/105** (2006.01); **H10N 15/10** (2023.01); **H10N 30/06** (2023.01); **H10N 30/098** (2023.01); **H10N 30/20** (2023.01); **H10N 30/30** (2023.01); **H10N 30/853** (2023.01); **H10N 30/076** (2023.01)

CPC (source: EP US)  
**C01G 33/00** (2013.01 - EP US); **C23C 14/34** (2013.01 - US); **H01L 27/105** (2013.01 - EP US); **H10N 30/06** (2023.02 - EP US); **H10N 30/098** (2023.02 - US); **H10N 30/20** (2023.02 - US); **H10N 30/30** (2023.02 - US); **H10N 30/853** (2023.02 - US); **H10N 30/8542** (2023.02 - EP US); **H10N 30/877** (2023.02 - EP US); **H10N 30/076** (2023.02 - EP US)

Citation (search report)  
• [X] US 2014339962 A1 20141120 - FURUKAWA MASAHITO [JP], et al  
• [A] US 2010320871 A1 20101223 - SUENAGA KAZUFUMI [JP], et al  
• See also references of WO 2016152419A1

Designated contracting state (EPC)  
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